PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Gabrielle DUSPIVA, et al.

Appln. No.: 09/801,693

Confirmation No.: 3289

Filed: March 09, 2001

Docket No: Q63273

Group Art Unit: 2642

Examiner: William J. Deane, Jr.

For: A METHOD FOR PROVIDING A SERVICE IN A TELECOMMUNICATION NETWORK AND A CORRESPONDING INFRASTRUCTURE MANAGER

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellants within a two (2) month period from the September 30, 2004 filing date of the Notice of Appeal, submit the following:

I hereby certify that this paper is being sent by facsimile to the US Patent and Trademark Office on February 28, 2005. David Cushing 28,703

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I. REAL PARTY IN INTEREST

The real party in interest here is the owner of the application, Alcatel.

II. RELATED APPEALS AND INTERFERENCES

To the best of their knowledge, Appellants are not aware of any other appeals or interferences which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal.

III. STATUS OF CLAIMS

Claims 1-8 are all the claims pending in the application. Claims 1, 2, and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by USP 6,028,924 to Ram et al., and claims 3-5 and 7-8 are objected to as being dependent upon a rejected base claim. .

IV. STATUS OF AMENDMENTS

No amendments have been file subsequent to the final Office action mailed April 6, 2004.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention (claims 1 and 2) relates to a method for providing services in a telecommunication network of the type including a plurality of service switching units connected via a signaling system to a plurality of service control units collectively forming a service control plane. The invention (claim 6) further relates to an infrastructure manager used in providing services in a telecommnications network

Fig. 1 illustrates the operation of a prior art 2-layer intelligent network (IN) over which the present invention is an improvement. In such a network, the service control plane is split into a lower layer (LL-SCP) and a higher layer (HL-SCP), with the LL-SCP comprising at least one infrastructure manager responsible for pure network functionality and the HL-SCP comprising at least one service specific unit responsible for pure service functionality. When a subscriber terminal wants to access a service offered by the telecommunication network, he dials a service number which is received by a service exchange, resulting in the triggering of a service switching unit SSP to generate a service request message which uniquely identifies the requested service, and may simply be the dialed service number itself. As shown in Fig. 1, a first dialog following the paths 11, 12, 13 and 14 is established between the service switching unit SSP and the infrastructure manager LL-SCP, and a second dialog follows the paths 15, 16, 17 and 18 over the signaling transfer point STP to a service specific unit HL-SCP which in turn executes a service logic function for the required IN service. Thus, the HL-SCP and the SSP communicate with each other via the LL-SCP.

The purpose of the present application is to decrease the load on the LL-SCP. As shown in Fig. 2, when a service number dialed by a subscriber is received, the SSP generates a service request message 21 which is transmitted to the LL-SCP via the STP. Depending on the service identification contained in the service request message, the LL-SCP determines an HL-SCP which supports the provision of the requested service. The LL-SCP then transmits a modified service request message 22 to the HL-SCP determined by the LL-SCP. The HL-SCP extracts from the service request message 22 the address of the SSP requesting the provision of the service and sends a service acknowledgement message 23 to the requesting SSP over the STP. The SSP then extracts from the message 23 the address of the HL-SCP able to provide the service requested by the SSP. A direct dialog, i.e., one not going through the LL-SCP, is then established between the SSP and the HL-SCP.

In claim 1, the first two recited steps are the triggering of the SSP to request the service and the sending of the service request message to the LL-SCP. These steps are also found in the prior art. The improvement according to the invention resides in the last two steps wherein the LL-SCP identifies a service specific unit HL-SCP which supports the requested service and then a direct dialog is established between the SSP and the identified HL-SCP.

Claim 2 is directed to the feature of the invention discussed at lines 14-21 of page 7 of the specification whereby the entire service number is available at the SP while sending the service request message, thereby enabling, e.g., the use of the service number as the service request message.

Claim 6 is directed to the infrastructure manager itself, an example of which is shown in Fig. 4. The infrastructure manager LL-SCP includes a means 41 for detecting if the entire service number is contained in the service request message, means 43 for requesting any missing part of the service number, and means 44 for sending a trigger message to the SSP when the entire service number has been reconstructed at the LL-SCP. This trigger messahe TRIGG2 (shown in Fig. 3) has the same effect on the SSP as the trigger message TRIGG1, and the dialog then proceeds in the manner described above with reference to claim 1, resulting in a direct dialog being established between the SSP and HL-SCP.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1, 2 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by USP 6,028,924 to Ram et al.

VII. ARGUMENTS

1. Ram

Ram provides a method and apparatus for providing a telephone operating company with the ability to rapidly deploy advanced services into a public switched telephone network (PSTN).

Fig. 1 of Ram illustrates a distributed programmable service architecture 10 that includes a programmable switch matrix 24 embodied within a PSTN 20. Connected to the PSTN 20 are multiple network user appliance terminals 22. The programmable switch matrix 24 includes a programmable service node (PSN) 28 that provides external programmability to the programmable switch matrix 24. The programmable switch matrix 24 is communicatively coupled via a communications link 40 to a service control unit (SCU) 34 within a service control platform 32; and via a communications link 42 to a media resource unit (MRU) 36 within a media resource platform 33. The programmable service node (PSN) 28 provides a server mode operation in which call processing and hardware resources of the programmable switch matrix 24 are controlled by the SCU 34.

If a service call associated with a specific port from one of the user terminals 22 is a call that requires specialized call control processing, the SCU 34 provides instructions to the programmable switch matrix 24 via the programmable service node 28 to control the processing of the call. Specifically, one example of the Ram method for controlling processing of a service call received by a programmable switch matrix in a telecommunications system comprises the following steps:

(1) A first message is generated in response to a trigger detection caused by a service call received on a first port of the switch matrix 24. The first message includes call information associated with the service call.

(2) The first message is then output to the SCU 34 via a first communications link 40.

(3) A second message is received from the SCU 34 via the first communications link 40 wherein the second message includes data for controlling processing of the service call in the switch matrix 24.

(4) One or more instructions are sent to the switch matrix 24 for causing the programmable switch matrix 24 to perform one or more actions associated with the service call.

2. The Examiner's §102(b) rejection of claim 1 is improper

Claim 1 recites an LL-SCP and an HL-SCP. The Examiner has asserted that Fig. 1 of the present application and its description show that these elements are inherent. This rejection is improper for at least two reasons.

First, claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by Ram. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987). However, Fig. 1 of the present application and Ram are not a single prior art reference. There are a few exceptions to the above single prior art reference rule. One that might be relevant here is where extrinsic evidence may be used not as a second reference for obviousness but instead to show that a characteristic not disclosed in the

reference is inherent. *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264 (Fed. Cir. 1991).

However, by asserting that the LL-SCP and HL-SCP are inherent, referring to Fig. 1 of the present application, the Examiner has admitted that Ram is silent about these recited elements. In other words, the Examiner has agreed that Ram does not show or describe the LL-SCP and the HL-SCP. But the improvements of the invention of claim 1 over the prior art include identifying the HL-SCP at the LL-SCP, and establishing a direct dialog between the SSP and the HL-SCP. It is improper for the Examiner to admit that Ram is silent altogether about the LL-SCP and the HL-SCP, and at the same time assert that Ram teaches identifying at the LL-SCP an HL-SCP, and establishing a direct dialog between the SSP and the HL-SCP. The Examiner has never provided any information about where the possible positions of the HL-SCP and LL-SCP are in the drawings of Ram, how to connect an HL-SCP and an LL-SCP with the shown elements of the Ram system, how to identify an HL-SCP at the LL-SCP in Ram, and how to establish the direct dialog between the SSP and the HL-SCP. It is respectfully submitted that there is no disclosure in Ram as to any of the improvement features in claim 1.

Thus, the Examiner's §102(b) rejection of claim 1 is improper.

3. Ram fails to teach identifying an HL-SCP at the LL-SCP

As discussed above, in Ram, a first message includes call information associated with the service call – routed from the programmable switch matrix 24 to the SCP 34. A second message includes data for controlling processing of the service call in the programmable switch matrix 24

– routed back from the SCP to the switch matrix 24, where one or more instructions are sent to the switch matrix for causing the switch matrix to perform one or more actions associated with the service call. Thus, at the switching level, the location is required to be predetermined within the first message.

However, claim 1 recites a step of identifying at the LL-SCP an HL-SCP supporting a requested service. In other words, the claimed method provides late service selection at the LL-SCP. Accordingly, Ram fails to teach identifying at the LL-SCP an HL-SCP.

4. Ram fails to teach establishing a direct dialog between the SSP and the HL-SCP

Claim 1 recites a step of establishing a direct dialog between an SSP and the HL-SCP.

The Examiner has not indicated which part in Ram corresponds to the claimed SSP and how to establish a direct dialog between an HL-SCP (which is not shown) and an SSP (which is not identified). However, the examiner has agreed that Ram is silent about the HL-SCP and that the HL-SCP is inherent according to Fig. 1 of the present application. However, Fig. 1 of the present application illustrates a prior art telecommunication network with a 2-layer-IN service control plane, wherein an HL-SCP communicates with an SSP via an STP. There is no direct dialog between the HL-SCP and the SSP. Thus, Ram fails to teach establishing a direct dialog between the SSP and the HL-SCP.

5. Ram and the claimed invention are about different layers of a telecommunications network

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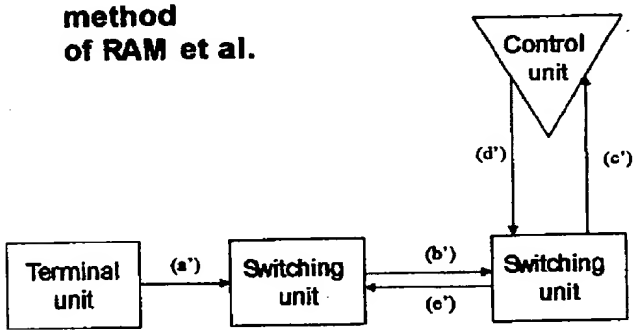
The main feature of the Ram method is that when a service call is identified as a call that required specialized call control processing, the call enters a "server mode", in which the SCU 34 provides instructions to the programmable switch matrix 24 via the programmable service node 28 to control the processing of the call. Ram provides the service invocation according to the following figure:



Thus, Ram only provides an indirection at the switching layer. However, the claimed invention provides a method with an indirection in the service layer. Thus, Ram and the claimed invention are about different layers of a telecommunication network. This indicates again that Ram fails to teach or suggest identifying at the LL-SCP an HL-SCP, or establishing a direct dialog between the SSP and the HL-SCP.

6. Ram fails to teach a method for providing a service in a telecommunication network

Ram suggests merely a decomposition of the switching unit into the programmable switch matrix 24, a service control unit SCU 34 (the application interface for intelligent service implementing the forwarding logic) and a media resource unit MRU 36 for media based services (like speech processing etc.), instead of a new method for providing a service in a telecommunication network. This could be concluded indirectly from the following parts of Ram:

> "The service control platform 32 provides functionality for implementing telephony services, wherein software applications (service software programs) defining such services are executed by the SCU 34 that control the call processing of a desired service call. The PSN 28 communicates with the SCU 34 over the communications link 40 utilizing a service programming interface signaling protocol (col. 5, lines 12-18);
>
> ... the SCU 34 provides instructions to the programmable switch matrix 24 (via the programmable service node 28) to control the processing of the call or agent (col. 8, lines 34-37);
>
> ... the programmable switch architecture 10 allows and supports co-existence with AIN servicing and service calls associated with AIN triggering and

the AIN database 27. A service call may trigger on an AIN trigger or an SCU trigger ... (col. 9, lines 21-23).

Pursuant to the foregoing arguments, claims 1 and 2 are patentable.

6. Claim 6

Claim 6 of the present application recites an LL-SCP comprising means for detecting an entire service number, means for requesting missing part of the service number, and means for sending a trigger message containing the entire service number.

The examiner has never identified which elements of Ram correspond to the claims elements in claim 6. Again, the Examiner has admitted that Ram is silent about the LL-SCP. Thus, Ram could not possibly teach or suggest the means recited in claim 6. The prior art of the present application does not teach or suggest these recited means either. Thus, Appellants respectfully resubmit that claim 6 and its dependent claims 7-8 are patentable.

Accordingly, Appellants respectfully request that the Examiner's rejection be reversed, and the present application allowed at the earliest possible opportunity.

Unless a check is submitted herewith for the fee required under 37 C.F.R. § 41.37 and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, including applicable extension fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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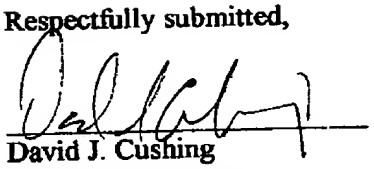
Respectfully submitted,



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Date: February 28, 2005

CLAIMS APPENDIX

CLAIMS 1-8 , OF WHICH CLAIMS 1, 2 AND 6 ARE ON APPEAL:

1. A method for providing a service in a telecommunication network comprising at least a service switching unit (SSP) able to access a service control plane comprising at least a service specific unit (HL-SCP) supporting services and at least a service infrastructure manager (LL-SCP), said service being univocally determined by a service identification, said method comprising the steps of:

- triggering said service switching unit (SSP) to request said service;
- sending a service request message comprising said service identification from said service switching unit (SSP) to said infrastructure manager (LL-SCP),

said method being characterized in further comprising the steps of:

- identifying at said infrastructure manager (LL-SCP), by means of said service identification, a service specific unit (HL-SCP) supporting said service;
- establishing a direct dialog between said service switching unit (SSP) and said service specific unit (HL-SCP).

2. A method according to claim 1, characterized in that said service switching unit (SSP) is triggered to request said service by a service number dialed at a subscriber terminal of said telecommunication network, the entire service number being available at said service switching unit (SSP) while sending said service request message.

3. A method according to claim 1, characterized in that if only a part of a service number dialed at a subscriber terminal of said telecommunication network, is available at said service switching unit (SSP), said method further comprises the steps of:

- establishing a preliminary dialog between said service switching unit (SSP) and said infrastructure manager (LL-SCP) to request said service switching unit (SSP) to provide said infrastructure manager (LL-SCP) with an entire service number; and
- sending by said infrastructure manager (LL-SCP) to said service switching unit (SSP) a trigger message containing at least said entire service subscriber number, when said entire service subscriber number is available at said infrastructure manager (LL-SCP),

said trigger message triggering said switching service unit (SSP) to request said service.

4. A method according to claim 3, characterized in releasing said preliminary dialog between said service switching unit (SSP) and said infrastructure manager (LL-SCP) when said trigger message has been received by said service switching unit (SSP).

5. A method according to claim 3, characterized in that a dummy digit is inserted in said entire service subscriber number contained in said trigger message.

6. An infrastructure manager (LL-SCP) to be part of a control plane of a telecommunication network, said infrastructure manager (LL-SCP) receiving a service request

message from a service switching unit (SSP) said infrastructure manager being characterized in that it further comprises:

- means (41) for detecting, if an entire service number is contained in said service request message;

- means (43) for requesting a missing part of said service number; and

- means (44) for sending a trigger message to said switching service unit (SSP) once the entire service number has been reconstructed at said infrastructure manager, said trigger message containing at least said entire service number.

7. An infrastructure manager according to claim 6, characterized in that it further comprises means (45) for inserting a predefined dummy digit at a predefined location of said service number sent in said trigger message.

8. An infrastructure manager according to claim 6, characterized in that it further comprises means (46) for deleting said predefined dummy digit from said predefined location of said service number received in said service request number.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.

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Sir:

Submitted herewith please find an Appeal Brief. The USPTO is directed and authorized to charge the statutory fee of $330.00, and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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